(owing to an assessment of five pesos per truck to which we gladly contributed); two fish trucks which had been broken down in the road had been repaired and taken away; our load was over a thousand pounds lighter than when we came out. We let out half the air pressure in our tires and we had learned considerable about desert driving through soft sand. At any rate we started out with an absolutely cool motor and went through those sand hills aflying, mostly in second year, shifting only a few times into low gear.

After we were safely out of the sand hills, we made a camp in the open desert and slept till morning. The full moon made all the fantastic desert vegetation visible as well as the distant mountains. We drove all the following night and arrived in San Diego at three a. m. after a most successful and enjoyable expedition.

LAND AND FRESHWATER SHELLS FROM THE VICINITY OF YAKIMA, WASHINGTON

BY WALTER J. EYERDAM

I had intended to publish the following list several years ago but did not take time to do so before. During the winters of the years 1924, 1925 and 1927, in the months of February and March, I often made short excursions in and around Yakima in search of shells.

The best collecting was had below Yakima and nearly as far as Union Gap, especially in debris left by freshets and in the little ponds and swamps. Irrigation ditches and wet meadows were also prolific with some of the freshwater shells and *Succinea*. Several trips were made to the Rattlesnake Hills and other mountains but not a single specimen of mollusk was found except at the bases of some of the mountains. I believe that, after the intensive searches made on numerous occasions in the vicinity of Yakima, very few more species can be added to the list. The dry hills, which are mostly of disintegrated lava seem to be very poor in shells.

Practically all my collecting was done in the month of Febru-

ary during three years so other forms may possibly occur in other seasons. Although several species of slugs were common and several encountered were rare, none were collected.

All Pisidia were identified by Sterki. *Ferrissia* was identified by Walker and all the others by Pilsbry and Vanatta. Several corrections were afterwards made by Henderson and Vanatta on doubtful species.

Polygyra columbiana pilosa Henderson, about a dozen immature specimens in leaf mould, (1924); *P. devia* (Gould), doubtful, 8 immature specimens (1924); *P. mullani olneyae* Pilsbry, about a dozen specimens under cottonwood logs (1924); *P. ptychophora* (A. D. Brown), rare (1924).

Vertigo sp., 1 specimen in leaf mould (1924).

Haplotrema vancouverense (Lea), a few (1924, 5); *H. sportella sportella* (Gould), several (1924).

Megomphix hemphilli (W. G. Binney), in debris along Yakima River (1924); *Vitrina alaskana* Dall, in leaf mould, about 20 specimens, (1924, 5, 7); *Retinella binneyana* (Morse); *R. hammonis* (Ström); *Euconulus fulvus alaskensis* (Pilsbry), a few in leaf mould (1924–7); *Zonitoides arboreus* (Say), about 300 taken from a cottonwood log (1924).

Discus cronkhitei cronkhitei (Newcomb), not uncommon in leaf mould (1924–5); *Punctum conspectum conspectum* Bland, a few in leaf mould near Yakima River, 2 miles southeast of Yakima (1924).

Succinea gabbi Tryon (+ var. *gabbi* Pilsbry), same locality as *Punctum* (1924); *S. nuttaliana* Lea, 6 specimens in leaf mould (1924); *S. oregonensis* Lea, about 100 specimens in leaf mould (1924–25); *S. rusticana* Gould, 4 specimens in a dry pond (1924); *S. haydeni* Binney, doubtful, in a wet meadow near Selah, 2 miles west of Yakima (1927).

Lymnaea obrussa Say, not common, on sand bars in Yakima River (1924–25); *L. palustris nuttalliana* Lea, not common, in a pond below the county fair grounds (1927); *L. ferruginea* Haldeman, in ponds along Yakima River (1927); *L. proxima proxima* Lea, not common, in ditches in a meadow (1927).

Physa nuttallii Lea, common on water-plants in ponds and ditches (1924–7); *P. propinqua* Tryon (?), a few preceding.

Planorbis (*Menetus*) *opercularis planulatus* Cooper (+*P. callioglyptus* Vanatta), common in ponds along Yakima River (1924–7); *P.* (*Gyraulus*) *similaris* Baker (+*P. parvus* Say), in ponds along Yakima River (1924–7); *P.* (*Helisoma*) *trivolvis trivolvis* Say, a few in a ditch about 2 miles west of Yakima (1927).

Ferrissia oregonensis (Clessin), quite similar to *F. fragilis* (Tryon) and resembles *F. caurina* Copper. About 500 specimens taken from stones and sticks in running water near Union Gap (1925). *F. caurina* Cooper is generally found on lily-pads and other vegetation.

Valvata humeralis californica Pilsbry, common on *Myriophyllum* in ponds along Yakima River (1924–7); *V. virens* (Lea) (?), a few (1924).

Anodonta kennerlyi Lea, living in the mill pond at the Yakima sawmill (1924–7); *Gonidea angulata angulata* (Lea), a few broken valves, in Yakima River (1924–7); *Margaritifera margaritifera falcata* Gould, a few broken valves in Yakima River (1924).

Musculium engbergi Sterki (Mss.), in ponds in Yakima River near Union Gap (1925); *M. ryckholti raymondi* Cooper, a few with preceding.

Pisidium compressum Prime, on dead leaves in a small pond (1925); *P. variabile* Prime, mixed with preceding; *P. concinnulum* Stehki, same habitat; *P. subrotundatum* Sterki, in mud among weeds in a pond (1925); *P. randolphi* Roper, in sandy mud on bars in Yakima River (1925); *P. columbianum* Sterki, with preceding; *P. amoenum* Sterki (Mss.), on leaves in small ponds (1924–5), *P. politum* Sterki, with preceding; *P. punctatum* Sterki, 2 small specimens with two preceding.

Besides these collected personally, the following have been reported from near Yakima by Junius Henderson (Non-marine Mollusca of Oregon and Washington): *Sphaerium nobile* (Gould), *Oreohelix parma* (Hemphill), *Planorbis* (*Gyraulus*) *vermicularis vermicularis* Gould and *Physa sparsestriata* Tryon.